

RYAN HYDROELECTRIC FACILITY, WATER TANK
About 140 feet north of Clubhouse
Great Falls vicinity
Cascade County
Montana

HAER MT-98-D
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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

FIELD RECORDS

HISTORIC AMERICAN ENGINEERING RECORD
INTERMOUNTAIN REGIONAL OFFICE
National Park Service
U.S. Department of the Interior
12795 West Alameda Parkway
Denver, CO 80228

HISTORIC AMERICAN ENGINEERING RECORD

RYAN HYDROELECTRIC FACILITY, WATER TANK

I. INTRODUCTION

HAER No. MT-98-D

Location: The water tank stands at the edge of a high rocky bluff about 140 feet above (north of) the historic clubhouse at the Ryan Hydroelectricity Facility's operators' camp. The powerhouse and dam at Ryan are about 1,100 feet west-northwest (upstream) of the clubhouse.

Quad: Morony Dam, MT (1991)

UTM: Zone 12; 491273 Easting; 5268355 Northing (NAD 83)

Date of Construction: 1913

Present Owner: Pennsylvania Power and Light-Montana (PPL-Montana)
45 Basin Creek Rd., Butte, Montana

Present Use: Elevated storage tank for domestic water supply

Significance: The water tank at Ryan derives significance for its association with a common trend in residential camp construction and use at isolated hydroelectric power developments in Montana. It originally served as a component of the temporary camp erected to house laborers hired to work on the project's construction and, following the project's completion, it became incorporated into the power company's permanent camp for plant operators at Ryan and their families. The water tank also is an important example of the conscious efforts by some early-twentieth-century construction and utility companies to improve living conditions for their workforce by providing a sanitary and reliable source of water.

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II. HISTORICAL INFORMATION

The water tank dates to the Ryan Hydroelectric Development's original construction phase. The engineering firm of Charles T. Main erected the structure in the spring of 1913 to accommodate the domestic water supply needs at its temporary construction camp, a large 650-man-capacity facility. The construction camp occupied a long but fairly narrow strip of terrace downstream (east-southeast) of the dam site. Facilities at the construction camp included an office building, officers' quarters, several temporary bunkhouses for common labors and other residential facilities. The water tank stood at the edge of a tall rocky bluff directly above (north of) the camp site (Figure 1).¹

The water tank's source of supply was a natural spring along the river below the camp (see Figure 1). Water at the spring collected in a concrete-lined cistern equipped with a motor-driven centrifugal pump. The pump lifted and feed water under 90 pounds of pressure into the system's recirculation pipe, a six-inch water main made of cast iron. The recirculation pipe carried the flow to the tank, rising about 160 feet in elevation over a distance of about 500 feet along the way. The recirculation pipe, likewise, served as the conveyance structure for the tank's water supply down to the service mains at the camp. The water flow between the tank and the camp dropped about 140 feet in elevation over a distance of about 250 feet.²

After the Ryan Hydroelectric plant first came on line in 1915, the natural spring and water tank remained the domestic supply system for camp operations. Initially, the system served just a few temporary construction camp buildings that the power company left standing for housing men hired to operate the plant. Cottages and a clubhouse added to the operators' camp in the ensuing years became connected to the system as well. In addition to the domestic needs of the operators and their families, the tank's water supply came to see use for irrigating trees, flowers and lawns, and for filling a swimming pool.³ The tank still stores the operators' camp's water supply at present (June 2008).

¹ *Great Falls Tribune*, 12 July 1913; Cecil H. Kirk, "History of Montana Power," ca. 1969, n.d., vol. II: chapter 9, pp. 8-9, typed manuscript, on file, Montana Historical Society Research Center, Helena; Cecil H. Kirk, "Construction of the Great Falls Hydro-Electric Development of the Great Falls Power Company," n.d., typed manuscript, on file, Montana Power Company Predecessor Companies Collection, Montana Historical Society Research Center, Helena; Montana Power Company, "Insurance Map of Volta, Montana," May 1921, revised to May 1940, drawing no. 21417-E, on file, PPL-Montana, Billings.

² Ibid.; Montana Power Company, "Appraisal of Property as of July 1, 1941, on Basis of Reproduction Cost New: Ryan Hydroelectric Development," p. 882, bound volume of appraisal forms on file, Montana Power Company Predecessors Companies Collection, Montana Historical Society Research Center, Helena.

³ Montana Power Company, "Insurance Map of Volta, Montana;" Montana Power Company, "Appraisal of Property as of July 1, 1941: Ryan Hydroelectric Development," p. 872, 883.